

**WHAT IS CLAIMED IS:**

1. A method for warning a user of a low-voltage state of a mobile communication terminal, comprising the steps of:
  - a) pre-storing a low-voltage alarm message in a memory;
  - 5       b) checking a voltage level of a battery in a call connection mode; and
  - c) if the voltage level of the battery is lower than a predetermined voltage, reading the low-voltage alarm message from the memory, and transmitting the read low-voltage alarm message to a called terminal communicating with the mobile communication terminal.
- 10       2. The method as set forth in claim 1, wherein step (c) includes the steps of:  
recognizing a phone number of the called terminal; and  
transmitting the low-voltage alarm message using a SMS (Short Message Service) message.
- 15       3. The method as set forth in claim 1, wherein the low-voltage alarm message is  
a voice message such as a Voice OGM (Out-Going Message).
- 20       4. The method as set forth in claim 1, wherein the low-voltage alarm message is one of a SMS message or a Voice OGM message, and  
wherein step (c) includes the steps of:  
selecting one of the SMS message and the Voice OGM message;  
if the SMS message is selected, transmitting the low-voltage alarm message to the called mobile communication terminal using the SMS message; and  
if the Voice OGM message is selected, transmitting the Voice OGM message to the called terminal through a traffic channel.
- 25       5. The method as set forth in claim 4, wherein step (c) further includes the steps  
of:  
recognizing a phone number of the called terminal; and

if the phone number of the called terminal is not recognized, selecting the Voice OGM message to be the low-voltage alarm message.

6. The method as set forth in claim 4,  
wherein step (c) includes the steps of:  
5 recognizing a phone number of the called terminal;  
determining whether the phone number of the called terminal is a mobile  
communication phone number or a fixed line phone number; and  
if the phone number of the called terminal is a mobile communication phone  
number, transmitting the SMS message to the called terminal as the low-voltage alarm  
10 message.

7. The method as set forth in claim 6, wherein step (c) further includes the step  
of:  
if the phone number of the called terminal is determined to be a fixed line phone  
number, transmitting the Voice OGM message as the low-voltage alarm message to the  
15 called terminal through a traffic channel.

8. The method as set forth in claim 1, further comprising the step of:  
d) after transmitting the low-voltage alarm message, cutting off a voltage  
received from the battery.

9. The method as set forth in claim 4, further comprising the step of:  
20 previously preparing a Voice OGM message written in languages of a plurality  
of countries as the low-voltage alarm message, and  
wherein step (c) includes the steps of:  
recognizing a phone number of the called terminal;  
determining whether the phone number of the called terminal is a domestic  
25 phone number or an international phone number; and  
if the phone number of the called terminal is an international phone number,  
reading from the memory a Voice OGM message in a language of a country

corresponding to the international phone number as the low-voltage alarm message, and transmitting the read Voice OGM message over a traffic channel.

10. A mobile communication terminal apparatus, comprising:  
a voltage detector for detecting a battery voltage;  
5 a message storage unit for storing a low-voltage alarm message therein; and  
a controller for transmitting the low-voltage alarm message to a called terminal  
when the battery voltage is lower than a predetermined voltage.

11. The apparatus as set forth in claim 10, wherein  
the low-voltage alarm message is a SMS (Short Message Service) message.

10 12. The apparatus as set forth in claim 10, wherein  
the low-voltage alarm message is a Voice OGM (Out-Going Message) message.

13. The apparatus as set forth in claim 10, wherein  
the controller determines whether a phone number of the called terminal is a  
mobile communication phone number or a fixed line phone number, transmits a SMS  
15 message as the low-voltage alarm message when the phone number of the called  
terminal is a mobile communication phone number, and transmits a Voice OGM  
message as the low-voltage alarm message when the phone number of the called  
terminal is a fixed line phone number.

14. The apparatus as set forth in claim 13, wherein  
20 the message storage unit stores a Voice OGM message written in languages of a  
plurality of countries prior to a call, and

the controller determines whether the phone number of the called terminal is a  
domestic phone number or an international phone number, reads a Voice OGM message  
of a corresponding country from the memory storage unit if the phone number of the  
25 called terminal is determined to be an international phone number, and transmits the  
read Voice OGM message as the low-voltage alarm message.

15. The apparatus as set forth in claim 10, wherein the controller transmits a Voice OGM message as the low-voltage alarm message when a phone number of the called terminal is not recognized.